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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/786,068

02/26/2004

Toshihisa Nozawa

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03/06/2008

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP

901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

KEENAN, JAMES W

ART UNIT

PAPER NUMBER

3652

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/786,068	Applicant(s) NOZAWA ET AL.	
	Examiner James Keenan	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
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| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/02/07 has been entered.

2. The disclosure is objected to because of the following informalities: page 15, line 16, the reference to figures 5 and 6 should apparently be to figures 6 and 7.

Appropriate correction is required.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 12-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 12 recites plural "first process chambers" and "second process chambers" and a transfer mechanism with "two substrate supporters" but reference is made to only a single "substrate" for being moved into the process chambers "in synchronization". Furthermore, reference is made to a detecting mechanism in "the second process chamber". Therefore, the structure and operation of the apparatus is unclear.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, and 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Tamura (US 7,331,751).

Tamura shows a substrate processing apparatus and method comprising a vacuum transfer chamber 2 in which a "linear transfer path is provided", as broadly claimed, first and second process chambers 3a-b, 4a-b, each connected to the transfer chamber via gate valves 5a-d, transfer mechanism 10 "connected movably to the transfer path", as broadly claimed, and which carries the substrates into and out of each process chamber along a linear path, a detecting mechanism 11a-d which can be stationed inside or outside any or all of the process chambers (col. 6, lines 24-38 and 49-55) along a carry-in route for the substrate to be conveyed to a table 30a-b, 40a-b in each chamber and configured to detect a relative position between the substrate and the table and a correcting mechanism (not explicitly shown but described in col. 5, lines 3-21 and col. 6, lines 4-24) which corrects displacement of the wafer based on the result of the detecting mechanism.

Re claims 4-6, note col. 5, lines 27-48.

Re claim 7, the apparatus of Tamura clearly performs the method steps as claimed.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura in view of Sundar (US 6,237,517, previously of record).

Although Tamura corrects the displacement of the relative position of the wafer by comparing the detected position thereof with a known proper position, there is no explicit disclosure of a storage unit for storing predetermined coordinates representing the proper position. While the examiner is of the opinion that such a storage unit (i.e., "look-up table") is so well known in the art as to be virtually inherent, Sundar is nevertheless cited for its showing of such a feature in a nearly identical processing system, as described in the previous Office action (note esp. col. 5, lines 24-37).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Tamura by utilizing a storage unit for storing coordinates of the proper position of the substrate and comparing it to the detected position thereof in order to correct the position of the substrate, as shown by Sundar, as this would simply be a well known and art recognized means of

correcting the path of a substrate as it is moved into a processing chamber, the use of which in the apparatus of Tamura would neither require undue experimentation nor produce unexpected results.

9. Claims 12, 13, and 15-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura in view of Reimer et al (US 2002/0192056, previously of record).

Although Tamura shows a plurality of first and second process chambers arranged opposite to each other on both sides of the transfer chamber, the transfer mechanism does not have two substrate supporters for carrying substrates into and out of the process chambers in synchronization.

Reimer shows a similar substrate processing system wherein vacuum robot 112 may be either single or dual bladed (par. 28), as seen in fig. 1.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Tamura by utilizing a dual bladed robot in the vacuum chamber so as to synchronously transfer substrates to and from the plural process chambers, as taught by Reimer, as this is an extremely well known means of improving throughput in the wafer handling industry.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura in view of Reimer, as applied to claims 12-13 above, and further in view of Sundar.

This rejection utilizes the same obviousness rationale set forth above in par. 8 with respect to claim 3.

11. Applicant's arguments with respect to claims 1-7 and 12-17 have been considered but are moot in view of the new ground(s) of rejection.

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 571-272-6925. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Keenan/
Primary Examiner
Art Unit 3652

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2/26/08